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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,071	06/19/2006	Bert Braune	12406-142US1 P2003,0442 U	7131
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EXAMINER WILSON, ALLAN R				
ART UNIT 2815		PAPER NUMBER		
NOTIFICATION DATE 01/16/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary

Application No.

10/564,071

Applicant(s)

BRAUNE ET AL.

Examiner

ALLAN R. WILSON

Art Unit

2815

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restriction

Newly submitted claim 15 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

- I. Claims 1-10 and 12-14, drawn to a subcombination light-emitting component, classified in class 257, subclass 98.
- II. Claim 15, drawn to a combination light-emitting component and a base with conductive coatings, classified in class 257, subclass 466.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombination and combination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because another device can be used. The subcombination has separate utility such as use with a base without conductive coatings.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 15 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

This application contains claim 15 drawn to an non-elected invention. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Objections

Claims 9 and 10 are objected to because of the following informalities: Whether the claimed material is a replacement for or in addition to the TiO₂ is confusing. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,962,971 to Chen (of record) in view of US Patent Application Publication No. 2004/0007169 to Ohtsu et al. (hereinafter "Ohtsu").

Regarding claim 1, Chen illustrates in at least figures 3 and the related text:

A light-emitting component comprising:

at least one primary radiation source 1 that in operation emits electromagnetic primary radiation;

at least one luminescence conversion element 4 that converts at least a portion of the primary radiation into a radiation of altered wavelength (col. 2, lines 41-43); and

a filter element 7 disposed after the luminescence conversion element in a radiation emission direction of the component.

Chen does not show “the filter element comprising a plurality of nanoparticles embedded in a matrix material, the nanoparticles comprising a filter substance which by absorption selectively reduces an intensity of at least one spectral subregion of unwanted radiation, wherein the filter substance comprises TiO₂ in both the anatase and rutile modifications.” Ohtsu discloses in paragraphs 0069 and 0131-0133 a filter element comprising a plurality (10% to 60% by volume) of nanoparticles embedded in a matrix material, the nanoparticles comprising a filter substance which by absorption selectively reduces an intensity of at least one spectral subregion of unwanted radiation (para. 0131), wherein the filter substance comprises TiO₂ in both the anatase and rutile modifications (para. 0069, page 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have TiO₂ nanoparticles. The motivation for doing this is to prepare a filter where the light absorption wavelength is precisely controlled (para. 0131).

Regarding claim 2, Chen discloses in col. 2, lines 57-59 and col. 3, lines 1-3, said unwanted radiation is the primary radiation (ultra violet, hereinafter “UV”).

Regarding claim 3, Chen discloses in col. 2, line 60, said unwanted radiation is from or overlaps with a UV wavelength range (*i.e.* 360-380 nm) of less than 420 nm. Ohtsu discloses in paragraph 0131 an absorption spectrum of 400 nm or less.

Regarding claim 4, Chen discloses in col. 2, lines 49-63, said primary radiation source 1 comprises at least one luminescent diode (LED - Light Emitting Diode) that in operation emits UV radiation.

Regarding claim 5, Ohtsu discloses in paragraph 0132 for UV absorbing ability the upper limit is preferably 55% by volume. It would have been obvious for the limitation “the radiation intensity of the spectral subregion of said unwanted radiation is reduced by at least 50% by the filter substance” since 55% of the volume contains UV absorbing particles.

Regarding claims 6-8, Ohtsu discloses in paragraph 0065 said nanoparticles have an average particle diameter that is less than or equal to 20 nm and preferably greater than or equal to 1 nm. It has been held that where the general conditions of a claim are disclosed in the prior art discovering the optimum or working ranges involves only routine skill in the art. See MPEP 2131.03 and In re Aller, 105 USPQ 233.

Regarding claims 9 and 10, Ohtsu discloses in paragraph 0131 the filter substance further comprises at least one material selected from the group consisting of the metal oxide group of materials, zirconium oxide (ZrO₂) and zinc oxide (ZnO), and the sulfide group of materials, zinc sulfide (ZnS).

Regarding claim 14, Ohtsu discloses in paragraph 0075 the nanoparticles have a dispersion-enhancing surface coating (core-shell type) (Excitation is a dispersion-enhancing feature.).

Claims 12 and 13 are rejected under 35 USC § 103 (a) as being unpatentable over Chen and Ohtsu as applied to claim 1 above, and further in view of US Patent No. 6,099,798 to Kambe et al. (hereinafter “Kambe”).

Regarding claims 12 and 13, Chen and Ohtsu are discussed above, they do not show said matrix material is insensitive to UV radiation and said matrix material comprises at least one material selected from the group consisting of silicone, spin-on glasses, silicon compounds and polymers. Kambe discloses in col. 11, lines 19-26 said matrix material (window) comprises at least one material selected from the group consisting of spin-on glasses, silicon compounds and polymers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the selected matrix. The motivation for doing this is to provide a low cost material that is used in industry. It would have been obvious for the limitation “matrix material is insensitive to UV radiation” since a device has the properties which meet the claimed limitation once the claimed materials and structure are present.

Response to Arguments

Applicant's arguments with respect to claims 1-10, 12 and 13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: See the Information Disclosure Statement.

Any inquiry concerning this communication or earlier communications from an examiner should be directed to Primary Examiner Allan Wilson whose telephone number is (571) 272-1738. Examiner Wilson can normally be reached 7:00-3:30 Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Allan R. Wilson/
Primary Examiner, Art Unit 2815